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NORTHWESTERN UNIVERSITY

EVANSTON and CHICAGO

GENERAL CATALOGUE OF THE DENTAL SCHOOL 1912—1913



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Northwestern University

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NORTHWESTERN UNIVERSITY

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C a l e n d a r

1912-1913.

1912.			
October	1	Tuesday	Academic year begins
October 9-15	{	Wednesday	Examinations for advanced standing
		to Tuesday	
November	28	Thursday	Thanksgiving Day
December	21	Saturday	Christmas Recess to January 1, Wednesday, inclusive
1913.			
January	30	Thursday	Mid-year examinations begin
February	7	Friday	Second semester begins
February	12	Wednesday	Lincoln's Birthday
February	22	Saturday	Washington's Birthday
May	23	Friday	Senior examinations begin
May	29	Thursday	Junior and Freshman examinations begin
May	30	Friday	Memorial Day.
June	9	Monday	Alumni and Commencement banquet
June	10	Tuesday	Home Coming Alumni Clinic
June	11	Wednesday	FIFTY-FIFTH ANNUAL COMMENCEMENT
June	12	Thursday	Practitioner's Course begins
July	9	Wednesday	Practitioner's Course ends

The Faculty

Abram Winegardner Harris, ScD., LL.D.

President

Greene Vardiman Black, M.D., D.D.S., Sc.D., LL.D.

Professor of Special Pathology, Operative Dentistry, Bacteriology, Materia Medica, and Therapeutics; Dean

Charles Rudolph Edward Koch, D.D.S.

Lecturer on Dental Economics; Secretary

Thomas Lewis Gilmer, M.D., Sc.D., D.D.S.

Professor of Oral Surgery

Edmund Noyes, D.D.S.

Professor of Dental Jurisprudence and Ethics

James Harrison Prothero, D.D.S.

Professor of Prosthetic Technics, Prosthetic Dentistry, and Metallography

Frederick Bogue Noyes, A.B., D.D.S.

Professor of Histology

Twing Brooks Wiggin, M.D.

Professor of Physiology and Pathology

George Amos Dorsey, Ph.D.

Professor of Comparative Anatomy

Charles Louis Mix, A.M., M.D.

Professor of Anatomy

Ira Benson Sellery, D.D.S.

Professor of Orthodontia

Harry Mann Gordin, Ph.D.

Professor of Chemistry

Arthur Davenport Black, A.M., M.D., D.D.S.

Assistant Professor of Operative Dentistry, and Assistant in Oral Surgery

Eugene Shaw Willard, D.D.S.

Assistant Professor of Operative Dentistry and Bacteriology

Fred William Gethro, D.D.S.

Assistant Professor of Operative Dentistry and Dental Anatomy

Harry Isaac Van Tuyl, B.S., M.D., D.D.S.

Assistant Professor of Anatomy

George Corwin Poundstone, D.D.S.

Assistant Professor of Special Pathology, Materia Medica, and Therapeutics

Clayton Frank Bloomfield Stowell, D.D.S.

Assistant Professor of Comparative Anatomy; Demonstrator in Extracting

Herbert Anthony Potts, M.D., D.D.S.

Lecturer on Anæsthesia, and Assistant in Oral Surgery

Jesse William Ritter, D.D.S.

Assistant in Histology, Bacteriology and Prosthetic Dentistry

James William Birkland, D.D.S.

Clinical Instructor in Operative Dentistry

George Buchanan Macfarlane, D.D.S.

Clinical Instructor in Operative Dentistry

Hillis Talley Brown, D.D.S.

Instructor in Anatomy

Jay Kaplan, Ph.C.

Assistant in Chemistry

George Edwin Smith, D.D.S.

Demonstrator in Prosthetic Dentistry

DEMONSTRATORS FOR 1911-1912

Martin Loryn Johnson, D.D.S.

Demonstrator in Charge of the Examining Room

Michael Joseph Buckley, D.D.S.

Special Demonstrator in Orthodontia and Operative Dentistry

Francis Joseph Hemmer, D.D.S.

Demonstrator in Prosthetic Dentistry

Carl Martin Holland, D.D.S.

Demonstrator in Operative Dentistry

Nils Tuveson, D.D.S.

Demonstrator in Prosthetic Dentistry

Walter Mann Pruyn, D.D.S.

Demonstrator in Dental Anatomy and Operative Technics

Herman John Lund, D.D.S.

Demonstrator in Operative Dentistry

Andrew Tiernan, D.D.S.

Demonstrator in Operative Dentistry

Earl Todd Young, D.D.S.

Demonstrator in Operative Dentistry

Floyd DeWitte Leach, D.D.S.

Demonstrator in Dental Anatomy and Operative Technics

Walter LeRoy Wilson, D.D.S.

Demonstrator in Prosthetic Technics

The Dental School

THE DENTAL SCHOOL was founded and is maintained for the purpose of preparing young men and young women in the most thorough manner for the practice of dentistry, and for the promotion of dental science and dental literature.

The Dental School was organized in 1887 and three years later became a department of the University. In 1896 it absorbed the American College of Dental Surgery and for some years occupied the building on Franklin and Madison Streets, Chicago, formerly occupied by that school. It is now located in Northwestern University Building, at the corner of Lake and Dearborn Streets, Chicago, occupying the upper three floors of the building, over 60,000 square feet.

The Clinic Room, sufficient in extent to accommodate the great clinic and the offices connected with it, is of the best design of construction, consisting of a single room with arched ceiling. It is on the sixth floor, with free light on two sides and abundant skylight. Adjoining the Operative Clinic is the Prosthetic Clinic, and on the same floor is the senior Prosthetic laboratory for crown and bridge work, the laboratory for porcelain and cast metal inlay work, an impression room, and two rooms and waiting room for extracting. The lecture rooms, three in number, are arranged on the amphitheater plan; each accommodates 225 students. Two are for the ordinary class lecture work, and one for the Oral Surgery clinic which has a waiting-room for surgical patients, a room for diagnosis and the preparation of patients, and a recovery room with sufficient beds for the temporary care of patients. Other rooms are the Anatomical laboratory, which is placed well apart, the first year and the second year Prosthetic laboratories, the Operative Technic laboratory, the first year and the second year Chemical laboratories, the laboratory for Histology and Bacteriology, the photographic laboratory, the museum, the reading room and library.

Northwestern University Building is in the transportation center of over three millions of people living within a radius of forty miles, a location especially advantageous for obtaining the great number of clinical patients needed in a dental school.

Admission and Instruction

A candidate for admission to the Dental School may be accepted upon presentation of a diploma or equivalent certificate from an accredited high school or kindred educational institution, or upon passing a satisfactory examination. The diploma must be signed by a superintendent of schools, the principal of a high school, or other responsible school officer. A certificate showing that a candidate has been graduated from an accredited high school, or from a school giving an equivalent course, signed by a city or county superintendent of schools, or by a state superintendent of public instruction, will be accepted as the equivalent of a diploma. A candidate who does not present such diploma or certificate must take an examination before a state superintendent of public instruction, or his deputy, and bring a report showing that the candidate has a preliminary education equivalent to that to be obtained in an accredited high school.

This School will receive no student who is not present within ten days after the opening day of the session in each year, or in case of necessary delays, by reason of illness properly certified by the attending physician, within twenty days after the opening day.

Students registering agree thereby to accept the discipline imposed by the Faculty.

It is desirable that students should register early, since the order of assignment of seats in the lecture halls is based upon the order of registration.

ADMISSION TO ADVANCED STANDING

Students from high schools and colleges, wishing credit for courses parallel to courses required in this School, should bring credentials showing the time spent on these subjects and should present their note books written in these courses.

Students who present certificates from other recognized dental schools covering subjects required in this School will be credited with such studies if the credentials are satisfactory to the Dean and to the professors in the respective departments, but when admitted to the third year the candidate must do one full year's work in this School. Graduates in medicine are credited with one year of time.

Course for the Degree of Doctor of Dental Surgery

The course covers three years. The year begins on the first Tuesday in October and closes on Commencement Day of the University in June. There are thirty-two weeks of actual instruction given, six days in each week.

Students for the regular course are received only during the first ten days of the first semester. Students desiring to pursue special studies may be received at any time.

For regular students who desire to extend their studies to four or more years, a special arrangement of studies will be provided.

A post graduate, or practitioner's course has been specially arranged which begins the day after Commencement in each year, and continues during four weeks thereafter.

METHODS OF INSTRUCTION

The studies of the course are grouped by departments, the work of each department proceeding from the general and fundamental subjects to the specialized and advanced.

The work in the departments is planned with reference to that of other departments, and the greatest care is taken that the whole shall be so correlated that the student in taking up a new subject will find himself prepared by work done in other departments.

Schedule of Courses

Students are expected to take the courses in the order enumerated, but some deviation from this rule may be allowed in cases approved by the Faculty.

Each of the departments is presented under the headings as given in the table below, separately and completely, and in alphabetical order, and courses are described fully in the order of the letters.

FIRST YEAR WORK

Anatomy a, b, c, d.	Dental Anatomy a, b.
Chemistry a, b, c, d.	Physiology a, b, c, d.
Histology a, b, c.	Prosthetic Technics a, b, c, d, e.
Operative Technics c, d, e, f, g, h.	

SECOND YEAR WORK

Anatomy e, f, g.	Operative Dentistry i, j, k.
Chemistry e, f, g, h.	General Pathology a, b.
Histology d, e, f, g.	Physiology e, f.
Materia Medica and Therapeutics a, b, c.	Prosthetic Dentistry f, g, h, i.

THIRD YEAR WORK

Comparative Anatomy, a.	Anaesthesia, g, h, i.
Ethics, Jurisprudence, and Dental Economics, a, b.	Orthodontia, a, b, c.
Operative Dentistry, l, m, n, o, p, q.	Pathology and Therapeutics, a, b, c, d, e, f, g, h.
Bacteriology, r, s.	Prosthetic Dentistry, j, k, l.
Oral Surgery, a, b, c, d, e, f.	

Anatomy

PROFESSOR MIX, PROFESSOR VAN TUYL, DR. BROWN, AND ASSISTANTS

The equipment of the department of anatomy is new and complete. The large Anatomical Laboratory, on the top floor of the building, is well lighted on the east and south by numerous windows, and in the center of the room by a large skylight. The ventilation is perfect. The equipment includes thirty-six dissecting tables of the latest pattern, of metal with plate-glass tops. The floor is waterproof and has such drainage that it can be flooded with hose and kept thoroughly clean. Skeletons are provided for the use of the students. On payment of a small deposit bones may be taken for home study.

FIRST YEAR

a. *Visceral Anatomy, Introductory Course*—First third of first semester. Two lectures and demonstrations a week. Professor Mix.

b. *Human Dissections*—One three-hour period a week. Professor Mix, Professor Van Tuyl, Dr. Brown, and assistants.

c. *Anatomy of the Extremities*—Two lectures a week. Professor Mix.

d. *Recitations on Lectures and Dissections*—Two hours a week. Professor Van Tuyl and assistants.

SECOND YEAR

e. *The Head and Neck*—Two lectures a week. Professor Mix.

f. *Human Dissections*—Two three-hour periods a week. Professor Mix, Professor Van Tuyl, Dr. Brown, and assistants.

g. *Recitations on Dissections*—Two hours a week. Professor Van Tuyl.

Chemistry

PROFESSOR GORDIN AND ASSISTANTS

The Chemical Laboratories, exclusively for dental students, are large, well ventilated, and complete in every respect. One laboratory is devoted to General Chemistry and Qualitative Analysis, another is arranged with special reference to the experimental teaching of Metallurgy and to other practical applications of chemistry of interest to dental students. In addition to the main laboratories, there are large dispensing rooms, a balance room well equipped with balances and apparatus for testing the physical properties of metals, amalgams, etc., and a room covered with a hood for carrying off fumes, and equipped for alloying, assaying and refining.

FIRST YEAR

a. *General and Inorganic Chemistry*—Lectures and recitations. First semester. Two hours a week. Professor Gordin.

b. *Chemical Laboratory*—Illustrative experiments in General and Inorganic Chemistry. First semester. Six hours a week. Professor Gordin and assistants.

c. *General and Inorganic Chemistry*—Lectures and recitations. Second semester. Two hours a week. Professor Gordin.

d. *Laboratory*—The metals and their compounds. Qualitative chemical analysis of unknown mixtures, particularly bases and alloys. Second semester. Six hours a week. Professor Gordin and assistants.

SECOND YEAR

e. *Organic Chemistry*—Lectures and quizzes. One hour a week. Professor Gordin.

f. *Laboratory*—Quantitative chemical analysis of dental alloys, etc. Refining of gold, silver and other metals. Laboratory study of cements and other filling materials. Assay of dental alloys for gold, silver, tin, platinum. Practical problems of dental chemistry. First semester. Three hours a week. Professor Gordin and assistants.

g. *Laboratory*—Illustrative experiments in Organic Chemistry. Analysis of saliva. Urine analysis. Second Semester. Three hours a week. Professor Gordin and assistants.

Comparative Dental Anatomy

PROFESSOR DORSEY

(Note.—In the absence of Professor Dorsey the subject will be presented by Assistant Professor Stowell.)

It is the design of the department to give in a concise form a view of the animal kingdom and its classifications, especially of the vertebrates, the forms of teeth in relation to food habits, and as weapons of offense and defense; a study of the extinct species of animals of the several classes, variations in tooth forms, illustrating development through the geological ages; the history of the changes from the simple forms to the complex forms now existing. The Museum of the Dental School is especially rich in skulls of the several orders of the animal kingdom, and furnishes illustrations for the study of all of the known tooth forms. The great collection of the Field Columbian Museum is available for illustration and study.

THIRD YEAR

a. *Evolution*—The meaning of similarity of structure; natural selection; changes in organs; correlation of growth between parts; principles of heredity and of fixity of species; tooth forms; definitions and descriptions of the varieties of forms; the typical mammalian dentation; classification of the animal kingdom, with concise descriptions of the typical characteristics of each. First semester. Two lectures a week. Professor Stowell.

Professional Ethics, Dental Jurisprudence, and Economics

PROFESSOR EDMUND NOYES AND DR. KOCH

This work consists of a brief statement of the important principles of morals; an exposition of the special duties and moral obligations of professional men to their patients, their fellow practitioners, and the public; the more important contrasts between the proper ethical standard of the professions and those of business or manufacturing pursuits.

The lectures on Jurisprudence follow, in the main, the text-book by Dr. Reh fuss, and include qualification and duty of expert witnesses, the importance of dental records, the limitations of dental practice, the qualifications required and the liabilities incurred, the penalties that may be suffered, and the defense to be made in case

of alleged malpractice; the laws respecting the practice of dentistry, the steps necessary to become legal practitioners, and the duties and liabilities of dentists with reference to the law.

THIRD YEAR

a. *Ethics*—Elementary principles of ethics; professional ethics; state laws relating to dentistry; Illinois dental law; dental jurisprudence; general review. Second semester. One lecture a week. Professor Edmund Noyes.

b. *Dental Economics*—This course was established to equip the increasing number of students without previous preceptorship in a dental office with a knowledge of the business side of dental practice. The work embraces practice building, methods of obtaining and retaining patients, business relations between the dentist and his patients, fees, accounts, records of operations, presentation and collection of accounts, methods of economy in the conduct of an office. Second semester. One lecture a week. Dr. Koch.

Histology

PROFESSOR F. B. NOYES AND ASSISTANTS

The department is provided with a large laboratory, fitted with seventy-one hardwood desks, each furnished with reagents, lockers, a compound microscope with lenses and condensers, electric lights, and other conveniences for preparation of specimens and microscopic study. It is provided also with a stereopticon and projecting microscope for demonstration purposes. Adjoining this large laboratory, there are a professor's study, and preparation laboratory with a photographic room fully equipped with all necessary apparatus.

The laboratory classes are usually divided into sections of not more than fifty students. This work has been greatly aided by a large collection of lantern slides from photo-micrographs and framed photographic prints; and by a large histological museum containing sets of microscopic slides sufficient in number on any given subject for a full section of the class, illustrating not only the ordinary soft tissues, but also the peridental membranes, dental pulp, periosteum, and ground sections of the teeth. These microscopic slides and sections, together with those stained and mounted by the students, are used by the classes for purposes of study.

FIRST YEAR

a. *Lecture Course*—The construction and the use of the microscope. A study of cell structure and functions, of the elementary tissues; histology of the organs; circulatory, lymphatic, alimentary tract, and accessory glands, respiratory system, urinary organs, and skin. One lecture a week. Professor F. B. Noyes.

b. *Laboratory Course*—A laboratory study of the subjects of the lecture course. One three-hour period a week. Professor F. B. Noyes, and assistants.

c. *Quizzes and Recitations*—One hour a week.

SECOND YEAR

d. *The Dental Tissues*—Enamel; the peridental membranes; periosteum; bone; mucous membranes and other soft tissues of the mouth. One and two-thirds semesters. One lecture a week. Professor F. B. Noyes.

e. *Embryology*—A short course. One lecture a week. One-third of a semester. Professor F. B. Noyes.

f. *Laboratory Course*—A laboratory study of the subjects of lecture courses d and e. One three-hour period a week. Professor F. B. Noyes and assistants.

g. *Quizzes and Recitations*—One hour a week.

Physiology

PROFESSOR WIGGIN

The work in Physiology includes a course of two lectures a week and text-book study with quizzes, in the first year; in the second year the subject is continued, one lecture a week, devoted mainly to the brain, nervous system, and to the functions of reproduction.

FIRST YEAR

a. *General Physiology*—The structure of the elementary tissue; the chemical composition of the body; the blood; the circulation of the blood. First semester. Two lectures a week. Professor Wiggin.

b. *Quizz Class Work*—In sections. First semester. Two hours a week.

c. *Respiration*—Secretion; food digestion; metabolism; nutrition and diet; animal heat; excretion; muscle; nerve physiology; production of voice. Second semester. Two lectures a week. Professor Wiggin.

d. *Quizz Class Work*—In two sections. Second semester. Two hours a week.

SECOND YEAR

e. *The Central Nervous System*—Brain; spinal cord; reproductive organs; development. Lectures and recitations. One hour a week. Professor Wiggin.

f. *Quizz Class Work*—In sections. Two hours a week.

General Pathology

PROFESSOR WIGGIN

This course is essential to the student's understanding of general pathological conditions, and forms the basis of his studies of the special pathology of the tissues of the teeth, the membranes of the teeth; the correlated tissues, and the organs of the mouth.

SECOND YEAR

a. *Etiology of Disease*—Disorders of nutrition and metabolism; diabetes; fever; general circulatory disturbances; local hyperemia; local anemia; hemorrhage; embolism; infarction; thrombosis; retrogressive processes; atrophy; infiltrations and degenerations; necrosis; inflammation; progressive tissue changes; neoplasms; infections; granulomata; bacteria, and diseases caused by them. Lectures and recitations. One hour a week. Professor Wiggin.

b. *Quizz Class in Sections*—Second semester. Two hours a week.

Operative Dentistry, Pathology and Bacteriology

PROFESSOR G. V. BLACK, PROFESSOR A. D. BLACK, PROFESSOR WILLARD,
PROFESSOR GETHRO, DR. BIRKLAND, DR. MACFARLANE,
AND ASSISTANTS

Operative Dentistry in some of its forms is presented to the student from the time he enters the school to his graduation. In the first semester of the first year he makes a study of the human teeth, or dental anatomy. Operative technics is presented in the

second semester and includes studies of the forms and nomenclature of the instruments used in operations on the teeth, of the preparation of cavities for filling, of filling materials and their manipulation.

The second year includes a lecture course with demonstrations on the technical procedures in filling teeth, and the student begins practical operations in the clinic room.

The third year includes a review of the technical procedures in filling operations, followed by a careful study of the pathology of dental caries, and the adaptation of means to its amelioration and cure.

The Clinic Rooms, built especially for the purpose, have abundant room with the best of light. They are well equipped with Columbia operating chairs in ample number for the classes.

The Operative Infirmary Clinic is under the direct supervision of the Professor of Operative Dentistry. The student begins this work with the opening of his second year and continues it to the end of the third year; the time given to it is much greater in the third year than in the second. It is the intention that this infirmary practice shall be as much like an actual dental practice as possible. The development of the ability to obtain and hold a practice, or the professional courtesy of an operator toward his patient essential to personal success, is regarded equal in importance to the development of manipulative ability.

The clinic rooms are open through the whole year for the benefit of students who may wish to have greater experience in clinical practice under competent supervision. The number of demonstrators during the summer is sufficient for the class that chooses to remain with the school. The clinical material is ample and excellent opportunity is offered for clinical practice.

DENTAL ANATOMY

FIRST YEAR

a. *Descriptive Anatomy of the Human Teeth*—Nomenclature. First semester. One lecture or recitation a week. Professor Gethro.

b. *Laboratory Course*—Studies of the forms of individual teeth; carving the tooth forms in bone or ivory; dissections and studies of the internal parts—pulp chambers and root canals. First semester. Nine hours a week. Professor Gethro and assistant.

OPERATIVE TECHNICS

FIRST YEAR

c. *Instruments and Instrumentation*—A study of instrument forms, instrument construction, and the adaptation of instruments

to the excavation of cavities. First third of second semester. One lecture a week. Professor Gethro.

d. *Laboratory Course*—First third of second semester. Nine hours a week. Professor Gethro and assistants.

e. *Cavity Nomenclature*—A study of the location of cavities in extracted teeth, of the forms of prepared cavities, of the naming of internal parts of cavities, and of the use of instruments in their preparation. Second third of second semester. One lecture a week. Professor Gethro.

f. *Laboratory Course*—Second third of second semester. Nine hours a week. Professor Gethro and assistants.

g. *Filling Materials and Filling Teeth*—Third third of second semester. One lecture a week.

h. *Laboratory Practice*—Filling materials and filling prepared cavities; extracted teeth, ivory, or bone. Third third of second semester. Nine hours a week. Professor Gethro and assistants.

SECOND YEAR

i. *Technical Procedures in Cavity Preparation*—Cavity nomenclature; cavity preparation; principles, instruments and appliances, and instrumentation; cavity preparation, by classes of cavities. One lecture and recitation a week throughout the year. Professor Gethro.

j. *Technical Procedures in Filling Teeth*—Filling materials; instruments and instrumentation, physics of filling operations, and of finishing fillings. Porcelain inlays; preparation of cavities; formation of matrix; making and inserting inlays; gold inlays. Filling with amalgam, cements, gutta-percha. Exposure and removal of dental pulp. Preparation and filling of root canals. One lecture and recitation a week throughout the year. Professor A. D. Black.

k. *Operative Clinic*—Open to second year students four hours a day during the entire season. Operations amounting to one hundred points required in gold, and one hundred points in amalgam. Professor A. D. Black and assistants.

THIRD YEAR

l. *Review of Technical Procedures in Filling Teeth*—One lecture or recitation per week throughout the year. Professor Willard.

m. *Pathology of Dental Caries*—Bacteriology of the human mouth; causative relation of bacteria to dental caries; caries of enamel; caries of dentin; inception and progress of dental caries; conditions of the beginning of dental caries; systemic causes of dental caries; susceptibility and immunity to dental caries; vital phenomena in dental caries; hyperesthesia of dentin; treatment of den-

tal caries; curative effect of fillings; selection of filling materials. First semester. One lecture or recitation a week. Professor A. D. Black.

n. *Management of Patients*—Cleanliness; evil habits in chewing food, and their correction. Management of special conditions. Management of cavities by classes; extension for prevention and its limitations; esthetic considerations. Erosions, management of cases of erosion. Atrophy; management of cases of atrophy. First half of second semester. One lecture or recitation a week. Professor A. D. Black.

o. *The Childhood Periods*—Management of children; the special pathological conditions of the teeth, their membranes, the gums, etc.; treatment of caries of the deciduous teeth. The shedding of the deciduous teeth; accidents of the shedding process. Growth and absorption of the roots of deciduous teeth. Growth to completion and reduction of the size of the apical foramen of the permanent teeth. Second half of second semester. One lecture or recitation a week. Professor A. D. Black.

p. *Operative Clinics*—Open to third year students from 10:30 to 5:30 daily during term time. Operations amounting to two hundred points are required in gold, and two hundred points in amalgam. Professor G. V. Black, Dr. Ritter, and assistants.

q. *Special Fillings*—Fillings are made under the instruction and immediate supervision of the special clinical instructors, and later full written descriptions of the conditions indicating the operation, the instrumentation and choice of instruments used, are submitted for grading as to excellence. Dr. Macfarlane and Dr. Birkland.

BACTERIOLOGY

A combined lecture, recitation, and laboratory course. The equipment includes culture ovens, sterilizers, conveniences for handling test tubes and for making culture media.

THIRD YEAR

r. *Principles of Bacteriology*—The preparation of culture media; management of laboratory cultures; distinguishing varieties of micro-organisms in laboratory cultures; physiology of micro-organisms; poisons produced by micro-organisms; diseases caused by micro-organisms, particularly those of the teeth and mouth; susceptibility and immunity to diseases. One lecture a week. Professor Willard.

s. *Laboratory Work*—Preparation of culture media; planting and management of cultures; separation of species in mixed cul-

tures; deriving pure cultures from infected animals; cultures from saliva, from mucous membranes and from carious teeth; staining, mounting, and microscopic studies; diagnosis of unknowns. Three hours a week. Professor Willard.

Oral Surgery

PROFESSOR GILMER, PROFESSOR A. D. BLACK, DR. POTTS, AND ASSISTANTS

The course embraces instruction in the general principles of surgery and in the practical application of surgery to pathological conditions occurring in or about the mouth and face, giving special attention to diagnosis and recognition of conditions.

The subject of Anaesthetics and Anaesthesia is presented in detail in lectures, in experiments on animals, in the clinic, in the oral surgery and daily in the extracting clinic. Nitrous oxide is used generally in the extracting clinic, and ether and chloroform in the oral surgery clinic. Local anaesthesia is exhibited frequently in the clinic in cases to which it is adapted.

THIRD YEAR

a. *Surgical Bacteriology*—Inflammation; suppuration; wounds; hemorrhage; necrosis; caries of bones; diseases of the maxillary sinus; resection of roots; tetanus; ankylosis; arthritis; facial neuralgia; fractures; dislocations; extraction of teeth; malposition of third molars; impacted teeth; replantation, transplantation, and implantation of teeth; cleft palate and harelip; affections of the lips, tongue and mouth; tumors; odontomes, ranula; cysts; aneurisms. One lecture a week. Professor Gilmer.

b. *Recitations and Quizzes*—One and one-half hours a week. Professor A. D. Black.

c. *Surgical Clinic*—Two hours a week throughout the year. Professor Gilmer, nurses from St. Luke's Hospital, Dr. A. D. Black, and Dr. Potts.

d. *Special Clinical Instruction*—Diagnosis and case histories. One hour a week. Professor A. D. Black.

e. *After-Treatment of Surgical Cases*—By students, under direction of Professor Gilmer.

f. *Clinic in the Extraction of Teeth, daily*—Open to second and third year students. Dr. Stowell.

g. *The Evolution of General Surgical Anaesthesia*—State of the patient; nature of operation; choice of anaesthetic; prolonged den-

tal operations; circumstances of administration; inspection and examination of patients; general anaesthetic agents; local and regional anaesthetics, dangers of anaesthesia. Second semester. One hour a week. Dr. Potts.

h. *Clinical Administration of Anaesthetics*—Oral surgery clinic. Two hours a week. Dr. Potts.

i. *Clinical Exhibition of Nitrous Oxid Anaesthesia*—Daily in extracting clinic. Dr. Stowell.

Special Pathology

MATERIA MEDICA AND THERAPEUTICS

PROFESSOR G. V. BLACK, PROFESSOR POUNDSTONE, AND ASSISTANTS.

Materia Medica is taught in a series of lectures, quizzes, and recitations, with demonstrations and experimental studies. There is also a laboratory study of the most useful methods of preparing drugs for medicinal purposes, with experimental studies of their therapeutic or toxic action. The course is richly illustrated throughout. Abundant practice is given in prescription writing. The great clinic, to which students have access throughout the year, gives ample opportunity to witness the application and therapeutic effects of drugs, and to obtain clinical practice.

SECOND YEAR

a. *The Sources and Various Forms of Drugs*—General and local action of drugs; agencies that modify the action of drugs; the art of prescribing medicines; a critical study of about one hundred drugs, classified according to their therapeutic and toxic action; a special laboratory study of escharotics, germicides, antiseptics, deodorizers. Systematic medication for dental purposes; dental prophylaxis; the use of germicides, antiseptics, escharotics, and astringents in dentistry. First semester. Two lectures a week. Second semester. One lecture a week. Professor Poundstone.

Lectures and Recitations—Professor Poundstone.

b. *Theses*—Each student is required to write five theses, of not less than three hundred words each, on subjects assigned.

c. *Clinical Practice*—The Infirmary is open to second year students four hours a day for the observation of conditions requiring the use of drugs and for clinical practice in their treatment. Each student is required to make one hundred points in clinical experience. See also Special Pathology and Therapeutics.

SPECIAL PATHOLOGY AND THERAPEUTICS

In dental practice this is a department of operative dentistry. It includes a study of the diseases and the abnormal conditions of the pulps of the teeth, of the membranes of the teeth, of the immediate surrounding soft tissues and bones, and the mucous membranes of the mouth. See also Oral Surgery.

THIRD YEAR

d. *Review of the Structure and Functions of the Dental Pulp*—Hyperemia and inflammation of the pulp; capping exposed pulps; obtunding sensitive dentin. Pulp devitalization; pulp removal; treatment of canals; root filling; suppuration; the healing process; immunity and susceptibility; suppuration of the dental pulp; alveolar abscess; absorption of roots of teeth and of bone; caries of bone; necrosis. A study of germicides and antiseptics with laboratory tests. Bleaching teeth. First semester. One lecture a week. Professor G. V. Black.

e. *Peridental Membranes*—Review of histological structures; simple gingivitis; calcic inflammation; phagadenic pericementitis; replantation and transplantation of teeth; functions of the mucous membranes of the mouth; stomatitis; prophylaxis; mouth hygiene. First half of second semester. One lecture a week. Professor G. V. Black.

f. *Preventive Treatment and Oral Prophylaxis*—Preventive measures which may be employed by both dentist and patient. Cleanliness and care in relation to the health of the soft tissues. The relation between operative and prosthetic procedures to the diseases of the soft tissues. Second half second semester. One lecture a week. Professor G. V. Black.

g. Quizzes, one hour per week throughout the year. Professor Willard.

h. *Clinical Practice*—In addition to the above courses, third year students are required to make two hundred points in practical treatments in the Infirmary clinic, and to send in for examination and criticism a complete history of the conditions found and the treatment record of each ten cases.

Orthodontia

PROFESSOR SELLERY, DR. BUCKLEY, AND ASSISTANTS

Orthodontia is taught both didactically and clinically. Proceeding from the normal occlusion, derangements of the alignment of the

teeth and malformations of the dental arch are systematically classified, and mechanical arrangements of fixtures for bringing the several classes of irregularities into normal form are carefully studied. Text-books: Angle, Guilford, Knapp. Lantern slides from photographs, X-ray pictures, and models of cases are used.

THIRD YEAR

a. *Occlusion and Facial Art*—Etiology, classification, diagnosis of malocclusion. The alveolus and alveolar processes, the periodontal membranes, and use of models. First semester. One lecture a week. Professor Sellery.

b. *Regulating Appliances*, Angle, Guilford, Knapp—Anchors, jack screws, levers, traction screws, extension arch and combinations, split plates, reciprocal anchorages, retention. Illustrated with models, with movable teeth and enlarged appliances. Stereopticon views, illustrating progressive regulation and final fixation. Second semester. One lecture a week. Professor Sellery.

c. *Clinic or Infirmary Course*—Open to students during first and second semesters for practical work in the correction of practical cases. Professor Sellery, Dr. Buckley, and assistants.

Prosthetic Dentistry

PROFESSOR PROTHERO, DR. RITTER, AND ASSISTANTS

The Prosthetic Technic Laboratory and the Junior Prosthetic Laboratory are situated on the fifth floor; and the Senior Prosthetic Laboratory, the porcelain and inlay laboratory are situated on the sixth floor, adjacent to the crown and bridge room. All are well supplied with outside light, and also are equipped completely with electric lights.

Each laboratory is furnished with electric lathes for grinding and polishing. The Junior Laboratory is completely equipped with the heavier laboratory appliances, such as vulcanizers, celluloid presses, and apparatus for casting aluminum plates. The Prosthetic Laboratory, for the use of second and third year students, and devoted to practical operations for patients, is equipped with the appliances necessary for modern prosthetic dentistry, including compressed air for blow pipe work. The adjacent porcelain and gold inlay laboratory is fitted with electric furnaces and with gasoline furnaces and various kinds of swaging devices and casting apparatus for gold-inlay work. The crown and bridge room, for practical prosthetic

operations, is equipped with thirty modern operating chairs and a sufficient number of electric connections.

FIRST YEAR

a. *Prosthetic Technics*—This course covers the fundamental principles of denture construction and crown and bridge work, and accompanies the laboratory course. First semester. One lecture a week. Professor Prothero.

Quiz and Recitation Work—First Semester. One hour a week.

b. *Laboratory Course*—Impression taking, model constructing, occluding, waxing, flasking; packing, vulcanizing, and finishing partial and full artificial dentures. First semester. Nine hours a week. Professor Prothero, and assistants.

c. *Metallography*—A descriptive course on the nature and physical properties of metals, especially those used in dentistry, with fundamental principles of their uses; the manipulation of metals, swaging, annealing, solders, and soldering, welding, tempering. Second semester. One lecture a week. Professor Prothero.

d. *Quiz or Recitation*—On the work of Courses a, b and c. Second semester. One hour a week.

e. *Laboratory Course*—Construction of dies and counter dies; swaging metal bases of German silver; attaching teeth by soldering and by vulcanite; construction of crowns and dummies, all metal, and metal and porcelain; assembling individual crowns and dummies to form bridges; constructing and tempering taps and dies of steel; drawing wire and tubing suitable for the construction of orthodontia appliances. Second semester. Nine hours a week. Professor Prothero, and assistants.

SECOND YEAR

f. *Lecture Course*—Review of technic principles outlined in first year; their application to practical operations in the Infirmary. The physical properties of plaster of Paris and other materials employed in prosthesis. Muscles of mastication; force of the bite; movements of the lower jaw; natural arrangement and occlusion of artificial teeth. One lecture a week. Professor Prothero.

g. *Quizz or Recitation*—One hour a week.

h. *Laboratory Course*—Construction of full metal and partial metal base dentures, with teeth attached by soldering and by vulcanite; construction and application of clasps to partial dentures; ad-

vanced work in crowns and bridges. Nine hours a week. Professor Prothero, and assistants.

i. *Prosthetic Clinic*—Each student is required to carry to completion for patients a number of practical cases, representing each of the various classes of prosthesis, amounting to at least one hundred points in crowns and bridges and one hundred points in plate work. Professor Prothero, and assistants.

THIRD YEAR

j. *A Critical Review*—Summary of recent methods and appliances; application of porcelain in prosthesis; baked porcelain crowns; porcelain bridges, full porcelain dentures; methods of cavity preparation for porcelain inlays; forming, baking, and setting porcelain inlay. Methods of obtaining wax models of cavities, forming investments, and casting, and setting gold inlays. The student is assigned a series of articles for reading, and is required to present a thesis covering the subject named. One lecture a week. Professor Prothero.

k. *Laboratory Course*—Cast aluminum base dentures; celluloid dentures; banded Logan crowns; baked porcelain crowns; porcelain bridges; continuous gum dentures. First semester. Six hours a week. Professor Prothero, and assistants.

l. *Prosthetic Clinic*—Practical pieces of prosthetic work of all varieties made and fitted for patients in the Infirmary. Studies of the condition of the mucous membranes; the preparation of roots for crowns and the abutments of bridges; making and setting crowns and bridges, and preparation of cavities and setting porcelain or gold inlays. The minimum requirement is two hundred points in crowns and bridges and two hundred points in platework.

The Infirmary is open to students from 10:30 to 5:30 o'clock each day during term time. This period is divided between the Prosthetic and the Operative Departments, and text-book work and general reading. Professor Prothero, Dr. Ritter, and assistants.

General Statements

REQUIREMENTS FOR DEGREE

The degree of Doctor of Dental Surgery is conferred upon students recommended therefor by the Faculty of the School. Candidates are recommended who have attended the required courses of lectures, who have passed satisfactorily all required examinations in

the subjects of study, the entire last year having been completed in this School; who have completed the required clinical and laboratory work; who in the judgment of the Faculty are of fit moral character and are 21 years of age; and who have discharged in full all financial obligations to the University.

THE LIBRARY AND READING ROOM

The Menges Library and Reading Room, named in honor of the late Dr. Theodore Menges, occupies, together with the attached Journal Reading Room, three thousand feet of floor space. It is furnished with reading tables and chairs for about one hundred students. The Library contains 3,079 volumes of books on dental and collateral subjects; a rich supply of dictionaries and encyclopedias conveniently placed in the Reading Room for easy consultation; and a nearly complete list of the dental journals that have been published in the English language, with about 16,000 duplicate numbers. The books most used by the students are duplicated, up to six or twelve, and a few to fifteen copies. The books and journals may be used in the Reading Room without restriction, and when the duplication of volumes will allow, they may be drawn out as a circulating library.

THE MUSEUM

The Museum is in the Reading Room and is open to inspection and study. The cases are arranged to show the specimens to the best advantage.

The comparative anatomy specimens are, with the exception of the gorilla and chimpanzee, of which there are full skeletons, heads with the teeth. There is a sufficient number of varieties of each of the several orders to afford specimens of every kind of tooth form and of every variety of placement in mammals, saurians, and snakes, with a large variety of fishes.

The principal specimens of human skulls are, first, an excellent mounting of the separated bones of the adult; second, a fine set of dissections in a series showing the development of the teeth and the roots from the first appearance in the fetus to the full adult development, and illustrating the absorption of the roots of the deciduous teeth, the shedding process, and the replacement by permanent teeth; also the absorption of the alveolar processes after the loss of teeth, with the changes that occur in the form of the bones of the jaws from childhood to old age. This is an exceptionally complete, attractive, and valuable set of specimens. There is also a variety of ordinary human skulls.

The Museum contains also a valuable collection of human teeth of abnormal forms; a very full and complete set of specimens illustrating interproximal wear and the flattening of the points of interproximal contact. It is especially rich in casts of cases of supernumerary teeth; some illustrations of the very early forms of artificial teeth, of manufactured porcelain teeth, and of dental instruments, illustrating the development in these lines. This collection has been made in the School largely by students and by alumni, and is being continually increased by donations from those who have met with specimens unusual or rare in practice. Such donations are requested from all practitioners to assist in building up this great museum of abnormal conditions of teeth and of associated parts for the benefit of dental education.

SITUATION AND SURROUNDINGS

The central location of the school and its convenient access from every point affords many and peculiar advantages to its students. It gives them the widest possible range of choice of residence while attending the school, without inconvenience in coming and going. It also gives the school the widest range of territory from which to draw the extensive clinic so necessary to a great dental school. The patients for this clinic come from all parts of the city of Chicago and its suburbs. The personal influence of the students of the school, each one of whom draws from his own friends and acquaintances, made in and about his place of residence, is an invaluable adjunct to the number who come simply as acquaintances of the school. Patients who come as the friends of students make up the personal clinical practice of the individual student.

In this the out-of-town students seem to be in no respect less favored than the student whose home is in the city. This gaining, and holding, a personal clinical practice under the supervision of the instructors in the clinic rooms has come to be one of the features of this school that has a telling effect upon the after-practice of its students. By this plan of work the student not only learns the theory of practice and the manipulations of practical operations in dentistry, but he passes at once to the work of real experience in building a practice for himself; in gaining that skill in professional comity and personal manner between himself and his patients, which is as necessary to him in after years, in drawing together and maintaining a practice, as his knowledge of dental diseases and his skill in their treatment.

For these reasons the residence of students in groups in widely different portions of the city is favored. This also gives the benefits of a more homelike life, while giving in the aggregate a far better conception of life in a great city and decidedly better opportunity to draw upon its advantages, while shunning the disadvantages of large gatherings of students in a single locality.

Chicago is a great city and gives many opportunities to the student who learns to avail himself of them. Lincoln Park on the north offers, besides its beautiful pleasure grounds, some extensive botanical gardens and winter conservatories, where all manner of plants may be enjoyed and studied; a fine zoological collection, where a large variety of animal and bird life may be studied, and the Museum of Natural History, in which there is a very large collection of birds, animals and fossil remains of extinct animal life. Jackson and Washington Parks on the south, besides their extensive pleasure grounds, also offer splendid botanical gardens and winter conservatories, while the Field Columbian Museum offers a rare collection of Natural History specimens especially suited for the study of comparative dental anatomy, of modern and ancient skulls and the condition of the teeth in the various races and types of men in different ages. The admission to this museum is free to students on presentation of their matriculation tickets to this school.

OTHER LIBRARIES

A number of libraries are accessible to students who have taste for study, or for looking up subjects of scientific or literary interest, or in connection with special studies.

The University library collections offer very abundant facilities for students. They are ample in the number of books adapted to the different schools and are so situated as to be easily accessible; generally within the school buildings. They consist of:

The College collection.

The Law collection.

The Medical collection.

The Pharmacy collection.

The Theodore Menges Library of the Dental School, and

The Theological collection.

CHICAGO LIBRARY (462,361 volumes, January, 1912) is on Michigan Avenue and Washington Street, five minutes' walk from the school. It is one of the finest libraries in the country. Students may receive books from this library when vouched for by responsible persons known to the officials. This library has also many branch

offices in different parts of the city, from which books may be received on application. These are convenient to many of the boarding places of students.

THE NEWBERRY LIBRARY is very large (285,000 volumes, January, 1912), and, besides general works, has also a large medical and dental library. It is on North Clark Street and Walton Place, and may be reached in a ten minutes' walk. This is a reference library, and books can be used only in its reading rooms.

THE JOHN CRERAR LIBRARY (270,000 volumes, January, 1912), occupies one and one-half floors in the Marshall Field Building, corner Wabash Avenue and Washington Street. It is devoted mainly to the natural, the physical and the social sciences, with their applications. It is a most excellent collection of books. It is a reference library, and its books are used only in its reading rooms.

These libraries are accessible to our students, and they will find in them not only a very large collection of books, but also men in attendance who are able and willing to assist students in finding information upon any given subject.

There are a large number of other libraries, both general and on special subjects, that are available to the student who may wish to make proper and legitimate use of them.

TEXT-BOOKS

Text-books will be on sale in the Theodore Menges Library of the school at publishers' prices. There will be a small profit from the sale of these books, which will be used for the benefit of the library. Students are invited to purchase their books in the school and aid the library. Each student will be required to have the books designated below. The Reference books are in the library and may be used as needed.

FIRST YEAR

Anatomy—Cunningham (new edition). \$6.00 Cloth. \$7.00 Sheep.
Dental Anatomy—Black. \$2.50.
Operative Dentistry—Black. \$10.00.
Prosthetic Dentistry—Prothero. \$5.00.
Physiology—Kirkes. \$3.00. Wiggin. \$2.00.
Exercises in Chemistry for Laboratory—McPherson & Henderson. \$1.25.
Histology—Schafer. Essentials of Histology, Descriptive and Practical. \$3.50.
Medical Dictionary—Stedman. \$4.50. Gould. \$1.00.

SECOND YEAR

Anatomy—(Same as first year.)
Operative Dentistry—Black. (Same as first year.)
Prosthetic Dentistry—Prothero. (Same as first year.)
Physiology—(Same as first year.)
Materia Medica—Prinz. \$5.00.
Pathology—Wiggin. \$2.00.
Chemistry—Moore's Outlines of Organic Chemistry. \$1.50.
Comparative Anatomy—Thompson. \$1.50.
Histology—Noyes.

THIRD YEAR

Operative Dentistry—Black. (Same as first and second years.)
Prosthetic Dentistry—Prothero. (Same as first and second years.)
Oral Surgery—Blair's Special Surgery of the Mouth.
 McCurdy's Oral Surgery.
Orthodontia—Angle. \$5.00.
Dental Jurisprudence—Rehfuß.
Bacteriology—Williams. \$2.00.

REFERENCE BOOKS

American System of Dentistry.
Manual of Plate Work—Haskell.
Crown and Bridge Work—Evans.
Diseases and Injury of the Teeth—Smale and Colyer.
Principles of Surgery—Senn.
The American Text-Book of Prosthetic Dentistry—Essig or Turner.
The American Text-Book of Operative Dentistry—Kirk.
Micro-Organisms of the Human Mouth—Miller.
Micro-Organisms—McFarland.
Dental Pathology and Pharmacology—Burchard.
Oral Surgery—Garretson.
Long's Chemistry.
Comparative Dental Anatomy—Tomes, Thompson.
Regional Anatomy of the Head and Neck—Eckley.
Anatomy—Morris, Eckley.
Histology—Piersol.
Materia Medica—Stevens, Butler.

INSTRUMENTS

The instruments essential to the students in the several departments of the school have been carefully studied and determined. Much care has been taken in the selection of the instrument sets that the variety of forms may be sufficient for the student's needs without being excessive. Close study of this subject and long, careful observation of students and the progress they make in the attainment of manipulative skill show their progress to be closely related to their instrument equipment. Therefore this school must demand that the instrument sets *required* be obtained by each student as a condition to his continuance in school work.

In operative dentistry it is found that a close adherence to the formula plan, in the study of cutting instruments particularly, is essential in teaching the important subject of cavity preparation, and this will be carried out critically in all the departments of the school. This teaching is begun in the technic classes and the same lines of instruction are followed progressively by teachers and demonstrators in all of the departments to the end of the Senior year, the same instrument sets being used throughout the course of study.

In prosthetic dentistry and in the several laboratories a similar care as to instruments is maintained.

The instruments in the list are *required* because they are essential to the student's progress, and students must provide them. *Students should not bring with them, nor purchase, instruments of other patterns, for they cannot be received as equivalents of the required sets.* They are the same as those that have been required in former years. No student is required to make changes in his instrument sets during his three years' course, and these instruments form his instrument equipment for entering practice after graduation.

INSTRUMENTS AND APPLIANCES REQUIRED DURING THE FRESHMAN YEAR

CUTTING INSTRUMENTS.

ORDINARIES.			
HATCHETS.		HOES.	
12-5-6		12-5-6	
8-3-6		8-3-6	
6-2-6		6-2-6	
12-5-12		12-5-12	
8-3-12		8-3-12	
6-2-12		6-2-12	
12-5-23		12-5-23	
8-3-23		8-3-23	
6-2-23		6-2-23	
SPECIALS.			
ENAMEL HATCHETS.			
Right, 20-9-12	Left, 20-9-12		
Right, 15-8-12	Left, 15-8-12		
Right, 10-6-12	Left, 10-6-12		
SPOONS.			
Right, 20-9-12	Left, 20-9-12		
Right, 15-8-12	Left, 15-8-12		
Right, 10-6-12	Left, 10-6-12		
GINGIVAL MARGIN TRIMMERS.			
Right, 20-(95)-9-12	Left, 20-(95)-9-12		
Right, 20-(80)-9-12	Left, 20-(80)-9-12		
Right, 15-(95)-8-12	Left, 15-(95)-8-12		
Right, 15-(80)-8-12	Left, 15-(80)-8-12		
BIN-ANGLE CHISELS.		STRAIGHT CHISELS.	
20-9-6		20	
15-8-6		15	
10-6-6		10	

SIDE INSTRUMENTS.

HATCHETS.	CLEOID.	DISCOLD.
5-3-28	3-2-28	20-2-12
		20-3-12

AMALGAM PLUGGERS.

30x10-7-12	10x30-7-12
35-7-12	15-7-12
1 Explorer, No. 3.	
1 each, Plugger Points, University.	
6x12-6-10 Parallelogram.	
5-10-3 Round.	
10-10-3 Round.	
20x5-2-18 Foot.	
Automatic Handle, No. 4.	
1 Black's special holding instrument.	

- 1 each, Burnishers, Nos. 2, 26, 28.
- 1 Instrument Roll.
- 1 Hand Mallet, No. 5.
- 1 pair Foil Carriers, No. 12.
- 1 Cement Spatula, No. 24.
- 1 Mixing Tablet, No. 2.
- 1 Mortar and Pestle, No. 2.
- 1 oz. Absorbent Cotton.
- 1 Arkansas Stone, 2x5x $\frac{3}{4}$ inches.
- 1 Bottle of Oil.
- 1 Root Canal Plugger, No. 35.
- 1 Root Canal Plugger, No. 36.
- 1 box narrow Polishing Strips, assorted.
- 2 Broach Holders, handles of dissimilar color.
- 1 package Barbed Broaches, assorted.
- 1 box round gutta-percha root canal points, assorted.
- 1 Alcohol Lamp with Annealing Tray.
- 1 sheet Steel for Matrices, gauge 3-1000.
- 1 sheet Copper for Matrices, gauge 26.
- 1 Lowell Pin Vise.
- 1 Boley Millimeter Gauge.
- 1 Revolving Head Engine Bit Holder.
- 1 Pocket Lens, two glasses.
- 6 Medicine Bottles.
- 1 each, Engine Burs, Nos. $\frac{1}{2}$, 1, 3, 5, 7, 11, 16.
- 1 box Piano Wire, length 6 in., gauge 25.
- 1 Grobet File, half round, 5 in., No. 1.
- 1 Grobet File, half round, 5 in., No. 3.

SPECIALS FOR FRESHMEN.

- NOT REQUIRED AFTER THE FRESHMAN YEAR.
- 1 Work Box.
 - 1 Card Board arranged for Tooth Sections.
 - 1 Card Board arranged for Instrumentation.
 - 1 set (6) Ivory Carving Blocks.
 - 12 small Wood Blocks for Mounting.
 - 1 Tooth Brush Handle.
 - 1 Stick Black Sealing Wax.
 - 1 Spool Black Silk.
 - 1 piece Brass Tubing for cleaning files, $\frac{3}{8}$ x6 inches.
 - 50 pieces Brass Wire, 4 $\frac{1}{2}$ inches long, gauge 13.

IN ADDITION TO THE INSTRUMENTS AND APPLIANCES USED IN THE FRESHMAN YEAR, THE FOLLOWING ARE REQUIRED IN THE OPERATIVE CLINIC DURING THE JUNIOR AND SENIOR YEARS.

GOLD FILLING INSTRUMENTS.

- 1 Automatic Mallet.
- 1 each Plugger Points.
 - 5- 1-23, Round.
 - 5- 2-23, Round.
 - 5-10- 3, Round.
 - 7½-10- 3, Round.
 - 10-10- 3, Round.
 - 5- 1- 0, Bayonet.
 - 7½- 3- 0, Bayonet.
 - 10x 5- 3- 3, Parallelogram.
 - 5x10- 3- 3, Parallelogram.
 - 6x12- 6-10, Parallelogram.
 - 12x 6- 6-10, Parallelogram.
 - 20x 5- 2-18, Foot.
 - 15x 5- 5-12, Foot.
 - 15x 5- 3-18, Foot.

FINISHING INSTRUMENTS.

- 1 set of 3 Finishing Knives.
- 1 set of 6 File-cut Finishing Files.
- 1 Black's Saw Frame.
- 1 doz. Kaerber's Saws, one edge.
- 1 doz. Thread Saws.

AMALGAM PLUGGERS.

- 35x15-7-12
- 25x7-12
- 15x25-7-12

SCALERS.

"G. V. Black School Set of Scalers," 12 instruments, as follows:

- 1 pair of Peridental Explorers, 15-8-6, R. and L.
- 1 pair of Pull Scalers, 15, F. and B. (forward and backward curved blades).
- 1 pair of Pull Scalers, 15-8-6, R. and L.
- 1 pair of Pull Scalers, 15-8-12, R. and L.
- 1 pair of Push Scalers, 15-8-12, R. and L.
- 1 Cleoid Scaler, 25.
- 1 Sickle Scaler, 20.

ENGINE AND INSTRUMENTS.

Sizes of Burs are given in tenths of millimeters.

- | | | | | | | |
|-------------|-------|---|---|----|----|----|
| Burs, Round | Sizes | 6 | 8 | 12 | 16 | 20 |
| | Nos. | ¼ | 1 | 3 | 5 | 7 |

1 Dental Engine.

- | | | | | | | |
|---------------------|-------|-----|----|----|----|----|
| Burs, Inverted Cone | Sizes | 6 | 8 | 12 | 16 | 20 |
| | Nos. | 33½ | 34 | 36 | 38 | 40 |

- | | | | | | | |
|-----------------------|-------|-----|----|----|----|----|
| Burs, Fissure sq. end | Sizes | 6 | 8 | 12 | 16 | 20 |
| | Nos. | 55½ | 56 | 58 | 60 | 62 |

- | | | | | | | |
|-----------------------|-------|-----|-----|-----|-----|-----|
| Burs, Finishing, oval | Sizes | 20 | 25 | 40 | Bud | 25 |
| | Nos. | 218 | 219 | 222 | Bud | 225 |

- | | | | | | |
|--------------------|-------|-----|-----|-----|-----|
| Drills, bi-beveled | Sizes | 8 | 10 | 12 | 16 |
| | Nos. | 100 | 101 | 102 | 104 |

- | | | | |
|-----------------|-------|-----|-----|
| Drills, sq. end | Sizes | 8 | 10 |
| | Nos. | 114 | 115 |

- Contra-angle hand piece and burs for engine.

- 1 Porte Polisher, No. 307.
- 1 box Wood Polishing Points.
- 2 Mandrels, No. 303.

- 1 Mandrel, Morgan-Maxfield.
- 1 box Emery Paper Disks, ½ inch, grits Nos. 00, 1.
- 1 box each Sand Paper Disks, ⅝ inch, grits Nos. 00, 1.
- 1 box each Cuttlefish Paper Disks, ½ and ⅝ inch.
- 1 doz. Three Cornered Rubber Polishing Disks.

ACCESSORIES.

- 1 "Northwestern" Instrument Case.
- 1 Mouth Mirror, No. 3.
- 1 Rubber Dam Punch.
- 1 Universal Rubber Dam Clamp Forceps.
- 1 pair Special Third-Molar Rubber Dam Clamps, right and left.
- 1 each Rubber Dam Clamps, Nos. 5, 9, 14, 18.
- 1 Hatch Cervical Clamp.
- 1 pair Rubber Dam Clamps for Roots.
- 1 spool of Waxed Floss.
- 1 Rubber Dam Holder.
- 2 Rubber Dam Weights.
- 1 Water Syringe, No. 22.
- 1 Chip Syringe, with valve in the back end.
- 1 Abscess Syringe, No. 33.
- 1 Cotton Holder.
- 1 package Barbed Root Broaches, assorted.
- 2 Smooth Broaches.
- 1 Glass Slab for sterilizing broaches.
- 1 sheet Base Plate Gutta-Percha.
- 1 each Explorers, Nos. 3, 13, 14.
- 1 Universal Separator, Perry or Worsley.

MEDICINE LIST.

- 1 Case Medicine Bottles.
- ½ oz. Dioxogen, 3 per cent.
- ½ oz. Campho-Phenique.
- ½ oz. Oil Cassia, 1; Phenol, 2; Oil Wintergreen, 3.
- ½ oz. Eugenol.
- ½ oz. Eucalyptol.
- ½ oz. Phenol, 95 per cent.
- ½ oz. Cresol and Formalin.
- ½ oz. Tincture of Iodine.
- ½ oz. Glycerine, Iodine and Zinc.
- ½ oz. Tinct. Aconite, 1; Iodine, 1; Chloroform, 1.
- ½ oz. Dialized Iron.
- ½ oz. Solution Sub-Sulphate of Iron.
- ½ oz. Orthoform and Europhen Paste.
- ½ oz. Chlora Percha.
- 1 Small Stick of Silver Nitrate.

SURGICAL CASE (Seniors Only).

- 1 Leather Pocket Case.
- 1 Scalpel, 1½-inch blade.
- 1 Tenaculum.
- 1 Sharp Steel Probe.
- 1 Silver Probe.

- 1 Grooved Director.
- 1 Exploring Needle.
- 1 pair Artery Forceps, $4\frac{1}{2}$ inch.
- 1 pair Surgeon's Scissors, $4\frac{1}{2}$ inch, straight.

PROSTHETIC DENTISTRY.

- 1 Plaster Bowl, "B."
- 1 Plaster Spatula, No. 17.
- 1 each Impression Trays, Uppers Nos. 2, 3, 22.
- 1 each Impression Trays, Lower Nos. 3, 15, 25.
- 1 "Improved Snow" Occluding Frame.
- 1 Snow's Face Bow.
- 1 box Pink Wax.
- 1 Prother's Wax Spatula.
- 1 iron Vulcanite Flask.
- 1 Flask Wrench, No. 10.
- 1 Vulcanite File, D. E., half round, 8 inches.
- 1 each Vulcanite Chisels, Nos. 14, 15.
- 1 each Kingsley's Finishers, Nos. 4, 5, 6.
- 1 Felt Cone, large blunt.
- 1 Felt Wheel, No. 2.
- 1 each Brush Wheels, Nos. 4, 20, 26.
- 2 Lathe Chucks.
- 1 Carborundum Wheel, $1\frac{1}{2} \times \frac{3}{4}$ inch, grit "B."
- 1 Carborundum Wheel, $1\frac{1}{2} \times \frac{3}{4}$ inch, grit "D."
- 1 Mechanical Saw Frame.
- 1 dozen each Mechanical Saws, Nos. 00, 2.
- 1 pair Plate Shears, Heinisch.
- 1 pair Curved Plate Shears, No. 5.
- 1 pair Round-nosed Pliers, $4\frac{1}{2}$ inches, No. 107.
- 1 pair Flat-nosed Pliers, $4\frac{1}{2}$ inches, No. 104.
- 1 pair Prothero's Contouring Pliers.
- 1 Horn Mallet.
- 1 Plate Punch, No. 1.
- 1 Solder Tweezers, "A."
- 1 Solder Tweezers, "L."
- 1 pair Reese's Solder Pliers.
- 1 Prothero's Plate Burnisher.
- 1 Compound Blow Pipe.
- 1 Asbestos Soldering Block, No. 2.
- 1 Borax Slate.
- 1 Plate File, Grobert, half round, 5 inches, No. 3.
- 1 Gas Burner, No. 12, with spider.
- 18 inches Rubber Tubing, $\frac{1}{4}$ inch.
- 54 inches Rubber Tubing, $\frac{1}{8}$ inch.
- 1 spool Annealed Iron Wire, 36 gauge.
- $\frac{1}{2}$ lb. Special Asbestos.
- 1 Melotte's Moulding Outfit.
- 3 lbs. Babbit Metal.
- 3 lbs. Counter-Die Metal.
- 1 set of (2) Casting Rings.
- 1 can Calcar or Moulding Sand.
- 5 dwts. Silver Solder.
- 1 bottle Separating Fluid.
- $\frac{1}{2}$ lb. Modeling Composition.
- 3 sheets Sandpaper, No. 1.
- 4 sheets Red Maroon Rubber.
- 1 bottle Shellac Varnish.
- 1 oz. Powdered Soapstone.
- 1 box Crystal Borax.
- 4 inches Steel Wire, $\frac{1}{4}$ inch diameter.
- 12 inches German Silver Wire, 16 gauge.
- 1 Wire Soldering Frame, 4×4 inches.
- 1 pair Pliers, No. 121.
- 1 pair Plate Nippers, No. 3M.
- 1 Riveting Hammer "B."
- 1 piece of German Silver Plate, 22 gauge.
- 1 piece Aluminum Plate, 18 gauge.
- 1 pair Case Cleavers.
- 1 pair Prothero's Files with No. 8 handles.
- 1 pair Crown and Collar Scissors, No. 11.
- 1 pair Contouring Pliers (optional), Benson's.

SPECIAL FOR JUNIORS.

- 1 Martin Screw Plate, holes Nos. 0 to 12, series "B."
- 1 Draw Plate, special.
- $\frac{1}{2}$ lb. German Silver Plate, 28 gauge.
- 12 inches German Silver Wire, 14 gauge.
- 12 inches German Silver Wire, 16 gauge.
- 12 inches Stub's Steel Wire, 93-1000.

SPECIAL FOR SENIORS.

PORCELAIN INSTRUMENTS.

- 1 "K" Pliers.
- 1 "K & D" Pin Vise.
- 1 pair Ball Pliers.
- 1 Porcelain Carving Instrument.
- 2 Camel Hair Brushes.
- 1 set Thompson's Burnishers, Nos. 1, 2, 5, 8.

In addition to the above list it is recommended strongly that each student obtain the quadrangle instruments, both the direct and the back-action, and the back-action pluggers to be used by mallet pressure. It is also recommended that each student obtain his own furnace for porcelain work and his own device for casting gold inlays, and make use of these while in school.

SUMMER CLINICS

The clinic rooms will be open all the year for the benefit of students who may wish to have greater experience in clinical practice under competent supervision. The number of demonstrators during the summer will be ample for the class that may choose to remain with the school. The clinical material is abundant, and an excellent opportunity is afforded for clinical practice.

The value and adequacy of the clinical instruction and experience in practice to students is inestimable. The extent of it can be best understood by an examination of the subjoined condensed tabular statement, extracted from the Examiner's report for the year ending June 30, 1912:

ASSIGNMENTS OF PATIENTS TO STUDENTS JULY 1, 1911, TO JUNE 30, 1912

	General	Special	Total
July, 1911	271	37	308
August	324	67	391
September	593	436	1,029
Total Summer Vacation.....	1,188	540	1,728
October, 1911	587	391	978
November	574	367	941
December	476	268	744
January, 1912	561	365	926
February	549	406	955
March	607	415	1,022
April	556	326	882
May	551	247	798
Total in Course.....	4,461	2,785	7,246
June	293	77	370
Total for twelve months.....	5,942	3,402	9,344
Transferred from last year.....			337
Total			9,681

The special patients are assigned to such students of their acquaintance as they ask to have take care of their cases, while the general patients are assigned by the Examiner to such students as need the particular experience and practice that their cases involve. Many of these general patients have come to the school for a number of years and continue to come in the same manner as they would go to the office of a dental practitioner. The school has thus acquired a very large clinic, really large enough for the instruction of a fairly large class of students, but the students are encouraged to have their friends ask for their especial services, as a step in the direction of the teaching of practice building.

The operations performed for these 9,681 patients during the year were 48,858 in the Operative, 3,820 in the Prosthetic, 317 in the Oral Surgery, and 1,430 in the Orthodontia Department; a total of 54,425 separate operations. Among the operations performed in the Operative Clinic were:

11,111 fillings of all descriptions.

2,964 root fillings.

1,209 pulps devitalized.

1,254 pulps removed under cocain.

823 dead pulps removed.

56 cases of pericementitis treated.

52 cases of pyorrhea treated.

2,031 cases of removal of calcareous deposits.

6,135 cases of extraction.

617 cases of administration of general anesthetics.

458 cases of administration of local anesthetics.

13 porcelain inlays.

562 cast gold inlays.

In the Prosthetic Department were made and inserted:

254 gold and porcelain bridges..... 826 teeth

573 shell crowns 573 teeth

44 Richmond crowns 44 teeth

12 porcelain crowns 12 teeth

64 banded Logan and cast base Davis crowns..... 64 teeth

430 plain Logan or Davis crowns..... 430 teeth

687 artificial dentures 6,870 teeth

Total teeth restored or replaced..... 8,819

There were 915 plates, crowns and bridges repaired. There were also one practical surgical splint and one complete obturator made and applied.

Of the 687 artificial dentures inserted there were:

2 continuous gum plates.

8 gold plates.

1 celluloid plate.

7 aluminum plates.

1 Watts metal plate.

668 vulcanite plates.

Fees and Expenses

The annual fees in force for the year 1912-1913 are as follows:

FIRST YEAR

Matriculation Fee	\$ 5.00
Tuition	150.00
Anatomy Ticket	5.00
Chemical Laboratory	5.00
Histological Laboratory	5.00
Breakage Fee	1.00
Locker Fee .....	.50

\$171.50

SECOND YEAR

Registration Fee	\$ 5.00
Tuition	150.00
Anatomy Ticket	5.00
Chemical Laboratory	5.00
Histological Laboratory	5.00
Breakage Fee	1.00
Locker Fee .....	.50

\$171.50

THIRD YEAR

Registration Fee	\$ 5.00
Tuition	150.00
Final Examination	15.00
Breakage Fee	1.00
Locker Fee .....	.50

\$171.50

TIME WHEN PAYMENT OF FEES ARE DUE

The registration fee must accompany the application for matriculation.

Tuition and the anatomical and breakage fees are payable at the beginning of the school year, and not later than October 20th.

The final examination fee, for Seniors, is payable at the beginning of these examinations, and before the candidates for graduation can be admitted to them.

The Tuition Fee may, at the option of the student, be paid in two or three installments. If paid in two installments, \$78.00 must

be paid not later than October 20th, and \$75.00 on February 20th. If paid in three installments, \$55.00 must be paid not later than October 20th, \$50.00 on January 20th, and \$50.00 on April 20th.

STUDENTS' EXTRA FUNDS

Students who bring with them larger amounts of funds than their immediate requirements necessitate may deposit the same in the University business office, in the rotunda on first floor, and draw on this deposit from time to time as needed.

STUDENTS' LOCKERS

Lockers for the keeping of students' instruments, engines and extra garments are furnished at a rental of 50 cents per annum. Each student is required to furnish padlocks of his own for his lockers.

RETURN OF FEES

Fees are not returned to students who are suspended or dismissed or absent for any cause except illness, and then only as a special concession by the Trustees.

HOW PAYMENTS SHOULD BE MADE

Payments should be made in currency or in Chicago exchange, drawn to the order of the Secretary of Northwestern University Dental School.

ROOMS AND BOARD

Rooms and board may be obtained in neighborhoods convenient to the school at \$5.00 to \$8.00 a week. Rooms without board, furnished or unfurnished, may be had at \$6.00 to \$10.00 a month.

A department of the Y. M. C. A. is maintained in our University Building, which looks especially to the students' interest in this direction.

In case students are compelled to do some outside work to assist them while attending school, this department will also endeavor to secure such employment as the student may be able to do without detriment to his educational work.

Course for Graduates and Practitioners

The course opens on June 13, 1912, and continues four weeks, with six days of teaching each week. It includes two hours of lectures and six hours of practical teaching each day, by members of the regular staff of the School. Especial attention is given to porcelain and gold inlays, crowns, bridge work of all kinds, the treatment of pyorrhœa, and the most recent methods in Operative Dentistry, Oral Surgery, and Orthodontia. The studies for 1912 are:

Operative Dentistry and Special Pathology—Professor G. V. Black, assisted by Professor A. D. Black, and others.

Histology, as Applied to Operative Dentistry—Professor Frederick B. Noyes.

Oral Surgery—Professor Gilmer and assistants.

Prosthetic Dentistry—Professor Prothero and assistants.

Orthodontia—Professor Sellery.

Certificates are given to those who complete the course.

PRACTITIONERS' COURSE FEES

Registration	\$ 5.00
Tuition for one subject.....	45.00
Tuition for two or three subjects.....	60.00
Tuition for the entire course.....	70.00

Graduates of this School are allowed a reduction of 20 per cent from these fees.

POST-GRADUATE COURSE LECTURE SCHEDULE, 1912

HOURS	MON.	TUES.	WED.
8:30—9:30	Gethro	Gilmer	Sellery
9:30—10:30	Prothero	Willard	Prothero
HOURS	THURS.	FRI.	SAT.
8:30—9:30	A. D. Black	Sellery	A. D. Black
9:30—10:30	Willard	Noyes	Prothero

Oral Surgery Clinic—Dr. Gilmer. Friday, 10:30—12:30.

Extracting Clinic—Dr. Stowell. 1:30 p. m. Monday and Wednesday.

Anesthesia—Dr. Potts. 1:30 p. m. Tuesday and Thursday.

The laboratory and clinic will occupy the rest of the time.

Register of Students 1911-1912

THIRD YEAR

Aaronian, Aaron Manoog..	Armenia
Akesson, Axel Victor.....	Sweden
Amöedo, Antoine Louis M. J. H.	France
Applebee, Alpha Bowers.....	Illinois
Babcock, William.....	Illinois
Bailey, George Watson....	Wisconsin
Ball, Ralph Thomas.....	Illinois
Basford, Harry Lea.....	Wisconsin
Basford, L. P.....	Wisconsin
Bass, Feris Achile.....	Texas
Bodorff, Ernst Viktor.....	Sweden
Boone, Thomas Eugene.....	California
Brady, Charles Thomas.....	Illinois
Braxton, Fred Jesse.....	Illinois
Carlisle, Thomas T.....	Illinois
Carlin, Leo Francis.....	Pennsylvania
Cashin, William Roy.....	Wisconsin
Collins, Camillus Carl.....	Iowa
Cook, John Richard Williams.	Indiana
Corby, Earnest Edward.....	Kansas
Croessmann, June William...	Illinois
Culp, Corydon Alonzo.....	Illinois
Cusack, Cecil Geo. Henry..	Australia
Davis, John Harrison..	South Dakota
Deans, Andrew Allan.....	Canada
Deeble, Albert Leslie...	South Dakota
Dore, George David...	South Dakota
Dunlap, Robert Murray....	Arizona
Dush, Verna Roscoe.....	Illinois
Edlund, Eskill Walter.....	Illinois
Etzbach, Bruno Anton.....	Illinois
Faller, Edward George....	Wisconsin
Freedlund, Gustav Reginald.	Florida
Freeman, Charles West.....	Vermont
Freeman, Louis George.....	Indiana
Genter, James Henry.....	Illinois
Gerner, Otto Gerhard.....	Illinois
Gish, Edson Joseph.....	Minnesota
Green, James Monroe.....	Texas
Hanrahan, Eugene Patrick...	Illinois
Harmon, Herbert Newel...	Wisconsin
Harris, Julius Charles....	Michigan
Heil, Henry Anthony.....	Wisconsin
Hobson, Fred Nae.....	Iowa
Hoffman, Augustus Knight...	Iowa
Hojem, Johan	Norway
Hughes, Edmund Joseph	North Dakota
Jamieson, Roy.....	Canada
Johnson, Ernest W. H....	Tennessee
Kennedy, Ernest	Canada
Kroschel, Maxie Leo.....	Texas
Larsen, Leif	Norway
Linn, Oliver Reinhold..	South Dakota
Love, William John.....	Minnesota
McElrath, Hugh McCorkle.	Kentucky
Macko, Frank, Jr.....	Illinois
Marshall, Roy Albert.....	Michigan
Massey, Robert Rollin, A.B..	Indiana
Mattice, Clyde Merrill...	Washington
Miller, Guy Morris....	South Dakota
Murfey, St. Clair.....	Mexico
Nelson, Alex Clark.....	Wisconsin
Numa, Kenichi.....	Japan
Parson, John Moore.....	Canada
Pelton, John Gordinier....	Wisconsin
Pickles, Nathan Corr.....	Missouri
Postle, Merten Meyne.....	Ohio
Randolph, Milton Fitz...	Washington
Rapp, Daniel Webster.....	Illinois
Rice, Warren Earl.....	Wisconsin
Rice, William John.....	Illinois
Rogers, Neil Oscar.....	Illinois
Root, Chester Ralph.....	Illinois
Rose, Leonard Adam...	North Dakota
Rowland, Thomas Jefferson.	Arkansas
Schröder, Bernard, Paul Marie.	France
Schrup, Karl Lawrence.....	Iowa
Schumacher, Frank Paul....	Illinois
Schweiger, George Fred'k....	Iowa
Sheetz, Roscoe Martin.....	Illinois
Shoore, Leo J.	Illinois
Sieber, Edward LeRoy, A.B..	Indiana
Simon, Manuel Saul.....	Tennessee
Skinner, Claude Wm. Harris.	Canada
Smith, George Edwin.....	Illinois
Stamp, Joseph William, Jr...	Indiana
Stander, William Albert...	Michigan
Stenborg, John Adolph A., A.B..	Minnesota
Stephens, George Jefferson.	Tennessee

Swords, Collins Ward.....	Louisiana
Tawney, Pliny Lane.....	Illinois
Tull, Allison Lee, A.B.....	Illinois
Tuttle, Merle Harrison.....	Michigan
Ulvestad, George Elmer.....	Minnesota
Unseitig, Clyde.....	Illinois
Urbanowicz, Henry John.....	Illinois
Vander Henst, Julio José.....	France
Vaughan, Charles Homer.....	Michigan
Vyverberg, Arnold Elmer.....	Iowa
Weding, Alfred.....	Norway
Williams, John Dyke.....	Iowa
Wilson, Leland Stuart.....	Washington
Yoshida, Yonekichi Beiji.....	Japan
Young, Roy Mercer.....	Illinois

SECOND YEAR

Adams, Fred Wright.....	Iowa
Aicher, Francis James.....	Illinois
Anderson, Fred William.....	Iowa
Anderson, Henry Adolph.....	Wisconsin
Armbruster, Carl.....	Germany
Avery, Willard Smith.....	Colorado
Auter, Stephen Lytle.....	Illinois
Bacon, Francis Erastus, B.S.....	Illinois
Barickman, Earl Wade.....	Illinois
*Blagg, Joseph Peter.....	Ohio
Blayney, James Roy.....	Illinois
Bloomquist, Guy.....	Illinois
†Bradbury, Arthur Rexford.....	Illinois
Buerstetta, Frank Allen.....	Nebraska
Burkhart, Ralph.....	Illinois
Burton, Walter Ellis.....	Minnesota
Butler, Guy Goldthorp.....	Iowa
Butler, Leigh Edward.....	Iowa
Carroll, A. Percy.....	Canada
Carter, Woodward Lee, B.A.....	Missouri
Christopherson, Henry Ole.....	Minnesota
Clark, Joseph S.....	Illinois
Clark, Ralph Edward.....	Utah
Clark, Ralph Llewellyn.....	Illinois
Cohen, Abraham Aaron.....	Illinois
Cohn, Louis Leonard.....	Illinois
Connors, James Thomas.....	Ohio
Dalby, Hubert F.....	Utah
Dallager, Roy Arthur.....	Minnesota
Davis, Joseph Hiram.....	Utah
Davis, Ned Everett.....	Iowa
Diers, Carl Everett.....	Nebraska
Ekins, George Warren.....	Utah
Evans, Lauren Reid.....	Illinois
Ferm, Julius William M.....	Iowa
Ford, Vernon Smith.....	Canada
Forrester, John Lawson M.....	B. W. I.
Freeland, Henry Lloyd.....	Canada
Geannellis, Iphicrates E.....	Turkey
Geering, Walter Henry A.....	Canada
Goldberg, Philip David.....	Illinois
Gordon, Meyer Arthur.....	Illinois
Green, Julius Caesar.....	Illinois
Greenberg, Isadore Moses.....	Illinois
Griffin, Homer.....	Illinois
Gruber, Max Frederick.....	Ohio
Guzman, Sergius Benignus.....	Mexico
Halverson, Joseph Edward.....	Wisconsin
Hanna, Charles Madison.....	Georgia
Hartman, Leroy Leo.....	Canada
Haseltine, Lawrence Floyd.....	North Dakota
Hein, Eugene G. A.....	Wisconsin
Heller, John Frederick.....	Illinois
Henderson, George Wm.....	Illinois
Hill, Percy Archibald.....	Australia
Hillenbrand, John Alois.....	Wisconsin
Hiner, Arthur Augustus.....	Ohio
Hoffman, Arthur Alfred.....	Wisconsin
Holmberg, Gale Lloyd.....	Wisconsin
Honoroff, Henry Aria.....	Illinois
Horwits, Maurice Albert.....	Illinois
Ingledeu, Walter Beaconsfield.....	Illinois
*Irons, Charles Glenn.....	West Virginia
Johnson, Gordon George.....	Wisconsin
Kelly, Ernst Joseph.....	Canada
Krakow, George Joseph.....	Iowa
Leonhard, George John.....	Illinois
*Littlefield, Edgar Earle.....	Washington
Luther, Earl O.....	Michigan
McKenna, William Louis.....	Michigan
McKenzie, Alfred Frederick.....	Illinois
Markle, Fred Lagozia.....	Illinois
Marlatt, Samuel Paul H.....	Canada
Mitchell, Ralph.....	Massachusetts
Morris, Ivor Hugh.....	Illinois
Morse, Mervyn Neale.....	Australia
Newling, Percival Ray.....	Australia
Nonnamaker, Fred Clarence.....	Ohio

*Not in Attendance.

†Did not complete course.

Ofner, Spencer Everett.....	Illinois
Olech, Joseph Benjamin.....	Russia
Oppermann, Anna Agnes.....	Illinois
*Ordon, Henry James.....	Russia
Osborne, Albert Henry....	Kentucky
Oury, Georges.....	Belgium
Pederson, George Nicholas....	Illinois
Pfening, Ernest.....	Illinois
Pooley, Alexander Beach....	Illinois
Potter, Daniel Clyde.....	Michigan
Prettyman, Ralph Walter..	Kentucky
Price, Ernest Edwin.....	Illinois
Randall, Earl William.....	Iowa
Reynolds, Elzy.....	Illinois
Rietdyk, John.....	Illinois
Sahr, Benjamin F. F.....	Minnesota
Schellenberger, Walter H..	Wisconsin
Schniedwind, Ernest Ambrose,	
A.B.....	Illinois
Seaborg, John Wesley.....	Illinois
Senseney, Harry Edwin, B.S....	Iowa
Shain, Clarence Lawson.....	Illinois
Sherman, Everett Eugene.....	Illinois
Shoaf, Ulysses Uriah.....	Kansas
Siegle, John Charles.....	Washington
Silknitter, John Powelson.....	Iowa
Smith, Ivan Edgar.....	Indiana
Sprague, Delbert Oscar.....	Iowa
*Sutcliff, Robert Alphonso....	Kansas
Swendiman, George Albert..	Minnesota
Tait, Edwin Sims.....	Canada
†Van Patten, Percival Hall....	Utah
Ward, Myron Earl.....	Minnesota
Warren, Crawford.....	Washington
Washburn, Cecil Dieckmann..	Illinois
Werner, Clarence Edward....	Illinois
Williamson, Guy Wm.....	Illinois
Windheim, Otto William....	Illinois
Wise, Lloyd Hill.....	Illinois
Woodford, Clark Burton....	Wisconsin
Wyatt, James Nicolas.....	Tennessee
Young, William Merki.....	Illinois

FIRST YEAR

Anderson, Ross.....	Utah
Armour, Ross Andrew, B.S.	Nebraska
Babbitt, George Mason.....	Illinois
Barkley, Gordon Charles....	Australia
Bechtel, Ray Emery....	North Dakota
†Bell, Elmer Andrew.....	Wisconsin
Benson, John Theodore.....	Illinois
Bernhisel, Everett Clark.....	Utah
Bernhisel, John Milton, Jr....	Utah
†Bly, Elmer Lee.....	Minnesota
Brandt, Roy Obert.....	Montana
Brooks, Anthony Wayne, B.S.	
.....	Mississippi
†Brown, Francis Nathaniel....	
.....	New Mexico
†Bruce, Harold Columbus.....	Iowa
Buchner, Elkanah Marshall..	Canada
Buchner, John Ernest.....	Illinois
Buttery, Horace Cayley.....	England
Bybee, Jefferson Frank.....	Utah
Camacho, Jorge Albert.....	
Chappell, Rollo Mann.....	Illinois
.....	South America
Chisolm, Patrick Donald, B.A.	
.....	Alabama
Christensen, Thomas Selmer..	Illinois
Clopper, Paul Wadsworth....	Illinois
Colletti, Alexander Emanuel..	Illinois
*Courrier, Ernest Adolph..	Minnesota
Crist, Kelsey Bradford.....	Illinois
Crostwait, Paul Vivian....	Missouri
Cruse, Milton.....	Illinois
Cultra, Vernon Ellsworth....	Illinois
Curry, D. English.....	Indiana
Dallimore, Franklin Clyde....	Utah
Daugherty, Frank Beeman....	Illinois
†Davidson, Claude Lyons....	Canada
Davy, Oakley Bruce.....	Illinois
DeBeck, Calvin Morgan....	Illinois
Dickey, James Harvey, B. S...	Illinois
Dravel, William Frederick..	Wisconsin
Dybing, Tenny.....	Norway
Eberle, William Roy.....	Illinois
Ellsworth, Jenkin.....	Wisconsin
Evans, Emmet Robert.....	Iowa
Ewing, Clyde Donald.....	Michigan
Feiman, Edward Morris.....	Ohio
Fillinger, Clinton Oscar..	Wisconsin
Foss, William Fridtjof..	North Dakota
Frankel, Joe Edward.....	Wisconsin
Fraser, Charles Lyle.....	Montana
Fritsch, Earl David.....	Illinois
Funkhouser, Ira, B.S., P.B....	Illinois
Gallagher, John Connel....	Minnesota
†Ganey, Henry Andrew.....	Illinois
†Grigg, Leon Allison.....	Montana

†Did not complete course.

Hanson, Harris Gilbert....	Wisconsin
Harpham, Ralph Barwick....	Illinois
Harris, Jasper Earl.....	Iowa
Haugen, Andrew.....	Illinois
Heck, Hyland Leroy.....	Illinois
Helm, Meredith.....	Minnesota
Hipsh, Henry Davis.....	Tennessee
Hirn, Frederick Joseph....	Michigan
Hollister, Harvey Franklin....	Iowa
Holloway, Claude Arlie.....	Illinois
Hopper, William Gerald....	Colorado
Horlick, Raymond Wesley....	Illinois
Hurley, Charles Marion....	Indiana
Hurt, Arthur Edward.....	Illinois
*Hurton, Roderick Geo. H....	Canada
Jamison, William Flavous....	Utah
Jirka, Robert Hugo.....	Illinois
Johnson, Howard Alfred....	Michigan
Juel, Martin Oliver....	South Dakota
Jung, Leo Henry.....	Illinois
†Kaplan, Nathan M.....	Illinois
Kato, Churgi.....	Japan
†Katz, Samuel.....	Illinois
Kennedy, John Benton.....	Montana
Kettlewell, Norman Lloyd....	Minnesota
King, Benjamin Harrison....	Wisconsin
Kratky, Alfred Harry.....	Illinois
†Kremer, Leo Wilfred....	South Dakota
Kuehn, Nicholas Ellis.....	Indiana
La Grow, Asa Joseph.....	Illinois
Lane, Lulu Izetta.....	Illinois
Latham, Haidee Weeks....	Louisiana
Lipsky, Julius Philip.....	Illinois
Lizar, Frank Aaron.....	Wisconsin
Lohmann, Emelia Mary....	Wisconsin
Loomis, Milo Bennett.....	Iowa
*McNeill, Hugh Thomas....	Massachusetts
Menges, Harry Dunbaugh....	Illinois
Merwin, Benjamin Stephen....	Wisconsin
Metcalfe, Earl Stanley.....	Iowa
Miller, Anna Laura, A.B....	Kansas
†Mitchell, George Hezekiah....	Illinois
Mitchell, John Henry, B.S....	Mississippi
Mortensen, Conrad Ervin....	Utah
Moughalian, Levon Bedros....	Turkey
Murray, Martin William....	Illinois
†North, Ford John.....	Indiana
Olson, Caleb Jonathan....	Wisconsin
Pankonin, George Franklin....	Minnesota
Parcells, Rue Priest.....	Indiana
Park, Lawrence Walter....	Wisconsin
Patrick, Clifford Leo....	South Dakota
Penberthy, Verne Edward....	Illinois
Pett, Theodore Paul.....	Ohio
Rea, Victor Benton.....	Michigan
Reeve, William Driver.....	Utah
Rennie, Will John.....	Minnesota
Rivard, George Alexander....	Maine
Robinson, Samuel John.....	Illinois
Rogan, Nathaniel.....	Illinois
Rose, Ross Shibley.....	Canada
Rosenhouse, Aaron Jacob....	New York
Satek, Edward.....	Illinois
Schmidt, Joseph James.....	Iowa
Schorsch, Albert Joseph....	Illinois
†Schroder, Anna Elizabeth....	Germany
Schwalen, Edmund.....	Minnesota
Scofield, Ralph Julius.....	Michigan
Sears, Ralph Augustus.....	Iowa
†Serles, Marwin Charles....	South Dakota
†Short, Oswald Strathmore....	Australia
Slack, Roy Bernard.....	Iowa
Soellner, Oscar Christian....	Illinois
Soucek, Edward.....	Illinois
Steffy, Chester Thomas....	Montana
Stubbett, Frank Burton.....	Illinois
Sulaiman, Mohammed.....	India
Sullivan, Edmund Francis....	Illinois
Sutton, Noah Richard....	Tennessee
Templeton, Leo Allen.....	Kansas
Terry, Charles Roy.....	Illinois
Terry, Graydon Mason.....	Texas
Thomas, Newton George, B.A....	Iowa
Tilton, Burge Melvin.....	Indiana
Tommerson, Leif Norman....	Minnesota
†Van Patten, Irvin Roy.....	Utah
Van Tassell, Harry Wilbur....	Illinois
Vinje, Svein.....	Illinois
†Warner, Dayton.....	Colorado
Weiler, Harry Burkhardt....	Pennsylvania
White, Thomas.....	Illinois
Williams, Aubrey Thomas....	Kentucky
Wills, Lellan Alva.....	Wisconsin
Wilson, Roy Melville, A.B....	Iowa
†Witmeyer, Howard Yeagley	Pennsylvania
Wodrich, William Henry....	Iowa
Wollin, Erving.....	Illinois
Wonder, Harold Dean.....	Colorado
Young, George William....	Illinois
Zak, Charles Frank.....	Illinois
Ziemke, Louis.....	Wisconsin

*Not in Attendance.

†Did not complete course.

SPECIAL STUDENTS IN ANATOMY

Baker, William Gilbert....	New York	Kuehn, Albert	Illinois
Brandenburg, Earl William....	Ohio	Leonhardt, Paul Augustus.	California
Brandon, Percy D.....	Canada	Lorentz, George Gibon.	West Virginia
Bunce, Harold Ross.....	Indiana	Lounsbury, Chancel Ray.....	Iowa
Clark, Richard McCord....	Canada	Maddox, Newton M.....	Illinois
Clevett, Merton Lloyd.....	Iowa	Miller, Nelson Thomas.....	Ohio
Crook, Harold Richard...	Washington	Mitchell, Robt. Andrew....	Kansas
Emmett, Arthur Van Tell.	Minnesota	Musselman, Elias Raymond...	Illinois
English, Charles Herbert....	Nebraska	Neavles, Claude A.....	Nebraska
Erickson, Louis A.....	Wisconsin	Rother, William J.....	Minnesota
Forbes, Robert Ireland.....	Kansas	Schmitt, Harry.....	Iowa
Hayn, Lloyd Edgar.....	Illinois	Sexsmith, Clare Wilde.....	Indiana
Hillebrand, W. Ray.....	Illinois	Shaver, Arlo Edwin.....	Iowa
Hoh, Charles G.....	China	Shipley, Carl Vinnedge.....	Ohio
Holmes, David Fred.....	Illinois	Stoll, Edwin Mallahan....	Kentucky
Jeffers, Owen Ross.....	Colorado	Walters, Karl Gress.....	Ohio
Keller, Pearl H.....	Ohio	Wheelock, Frank Bascom..	Wisconsin

SPECIAL STUDENTS IN DENTISTRY

Gray, Marion Lewis, D.D.S.	Missouri	Stuer, Emil J., D.M.....	Belgium
Krog, Signe Marie.....	Norway	Wittlin, Bernard, M.D., D.D.S..	.....
Landaas, Thorolf	Norway	.....	Germany
Ormiston, Joseph Mervyn..	Australia	Woodruff, William Henry, D.D.S.	.....
Ornmark, Gunnar	Sweden	.....	Illinois
Reagin, Ira Walter, D.D.S....	Illinois		

PRACTITIONERS' CLASS

Barnett, James J., D.D.S....	Missouri	Miller, Howard C., D.D.S..	Nebraska
Capo, John Thomas, D.D.S..	Louisiana	Miller, James Lewis, D.D.S....	Texas
Crume, Albert L., D.D.S....	Arkansas	Moore, J Franklin, M.D., D.D.S.	.....
DeGuise, Louis, D.D.S.....	Canada	.....	Mexico
Ellsworth, Lewis Norman, D.D.S.	.....	Prosser, Charles S., D.D.S..	Louisiana
.....	Utah	Rambo, Marcellus	Georgia
Engelmann, Andrew W., D.D.S.	Iowa	Reque, William Arnold, D.D.S...	.....
Evans, Charles C., D.D.S....	Illinois	.....	Wisconsin
Foust, Rufus Ewing, D.D.S.	Kentucky	Slawson, Benj. Earnest C., D.D.S.	.....
Laberge, Xiste, D.D.S.....	Canada	.....	Missouri
Leonard, Cyreno N., D.D.S...	Mexico	Spalsbury, James Alexander, D.D.S.	.....
Leonard, Mabel A.....	Mexico	.....	Wisconsin
Lightner, John Thos., Ph.G., D.D.S.	.....	Springer, Max, D.D.S.....	Georgia
.....	Georgia	Swan, Alexander James, M.D.	Canada
Martin, Joseph Ernest, Ph.G.,	.....	Taylor, Richard Porter, D.D.....	.....
D.D.S.	West Virginia	.....	Florida
Maynes, Gordon Neill, M.D.	Canada	Traxler, Alexander Mitchell,	.....
Mielke, Frank Edward, D.D.S.	.....	D.D.S.....	Michigan
.....	Wisconsin		

Recapitulation of Students by States and Countries

	Seniors	Juniors	Freshmen	Specials	Post-Grad.	Total
Alabama .....	...	...	1	...	...	1
Arizona	1	...	...	...	...	1
Arkansas	1	...	...	...	1	2
Armenia	1	...	...	...	...	1
Australia	1	3	2	1	...	7
Belgium .....	...	1	...	1	...	2
California	1	...	...	1	...	2
Canada	5	8	4	2	4	23
China .....	...	...	...	1	...	1
Colorado .....	...	1	3	1	...	5
England .....	...	...	1	...	...	1
Florida	1	...	...	...	1	2
France	3	...	...	...	...	3
Georgia .....	...	1	...	...	3	4
Germany .....	...	1	1	1	...	3
Illinois	28	45	52	8	1	134
India .....	...	...	1	...	...	1
Indiana	5	1	6	2	...	14
Iowa	7	11	12	4	1	35
Japan	2	...	1	...	...	3
Kansas	1	2	2	2	...	7
Kentucky	1	2	1	1	1	6
Louisiana	1	...	...	...	2	3
Maine .....	...	...	1	...	...	1
Massachusetts .....	...	1	1	...	...	2
Mexico	1	1	...	...	3	5
Michigan	5	3	5	...	1	14
Minnesota	4	6	9	2	...	21
Mississippi .....	...	...	2	...	...	2
Missouri	1	1	1	1	2	6
Montana .....	...	...	5	...	...	5
Nebraska .....	...	2	1	2	1	6
New Mexico .....	...	...	1	...	...	1
New York .....	...	...	1	1	...	2
North Dakota	3	1	2	...	...	6
Norway	3	...	1	2	...	6
Ohio	1	5	2	5	...	13
Pennsylvania	1	...	2	...	...	3
Russia .....	...	2	...	...	...	2
South America .....	...	...	1	...	...	1
South Dakota	4	...	4	...	...	8
Sweden	2	...	...	1	...	3
Tennessee	3	1	2	...	...	6
Texas	3	...	1	...	1	5
Turkey .....	...	1	1	...	...	2
Utah .....	...	5	9	...	1	15
Vermont	1	...	...	...	...	1
Washington	3	3	...	1	...	7
West Indies .....	...	1	...	...	...	1
West Virginia	1	...	1	1	3
Wisconsin	10	9	14	2	3	38
Total	104	119	153	43	27	446

Officers for 1912-1913

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GEORGE BROWN, First Vice-President, Chicago

W. R. NEFF, Second Vice-President, Chicago

PERCY B. D. IDLER, Secretary and Treasurer, Chicago

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The annual clinics will be held Tuesday, June 10, 1913, at the University Building.

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All are requested to send in material of interest. The Journal will serve as a medium for the exchange of friendly greetings. A new interest will thus be aroused, and still better work done and more accomplished by our Association in the future.

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We ask that the Alumni will support this undertaking even stronger than in the past, and coöperate earnestly with the officers of the Association and the Journal staff in making our official publication a still greater success.

For any information regarding the Association, address the secretary,

DR. P. B. D. IDLER,

Secretary-Treasurer,

209 S. State St., Chicago.

For information regarding the *School*, write DR. C. R. E. KOCH,
31 W. Lake St., Chicago.



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